

NOTES ON THE TACHINID GENUS *CYLINDROMYIA*
IN NORTH AMERICA
(DIPTERA)

CURTIS W. SABROSKY, *Entomology Research Division, ARS,
U. S. Department of Agriculture, Washington, D. C.*

Aldrich's revision of the common and characteristic tachinid genus *Cylindromyia* Meigen (1926, U. S. Natl. Mus. Proc. 68, Art. 23: 1-27, 1 pl.) has remained a standard and highly useful work. The figures of the male and female genitalia have assured proper identifications in most cases. No species have been added for North America since then, although a few names have been changed by reason of synonymy or homonymy. For an up-to-date list and bibliographic references, see Sabrosky and Arnaud (1965, in Stone et al., A Catalog of the Diptera of America North of Mexico, pp. 972-974).

During review of material in the preparation of the section on Tachinidae for the Catalog, a few notes were accumulated on *Cylindromyia* that are here placed on record to supplement the Aldrich revision and assist users of his key. Unless otherwise noted, material referred to is in the collection of the U.S. National Museum.

As numbered in this paper, the second and third abdominal segments are the anatomically correct ones. Aldrich, in agreement with common usage, ignored the narrow and small first segment and called these the first and second segments.

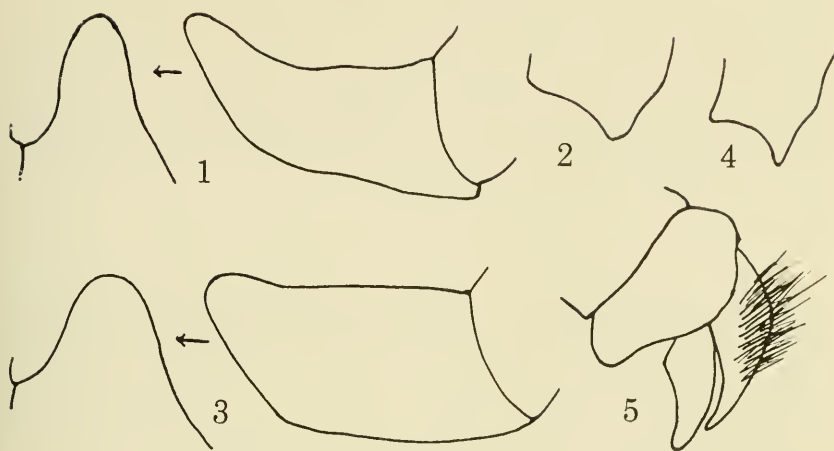
Subgeneric classification

From *Cylindromyia* (or *Ocyptera*) of older authors, Townsend at various times segregated five "genera," in addition to *Cylindromyia* s. str. In the Diptera Catalog, however, only one genus, *Cylindromyia*, is recognized, with three subgenera. It may reasonably be doubted that these are even of subgeneric value, but they are at least convenient units that may be used to group species related by the modifications of the female abdomen, as follows:

Subgenus *Apinocyptera* Townsend: Female abdominal segments 2 and 3 subequal in length; third segment ventrally with a spine-studded protuberance.

Subgenus *Neocyptera* Townsend: Second segment elongated and somewhat enlarged caudad, with numerous spines ventrally; third segment not protuberant, of ordinary length, with scattered spines ventrally.

Subgenus *Cylindromyia* Meigen s. str.: Abdomen "normal," i.e., of



Figs. 1-5. Fig. 1, last genital segment of female, and 2, lower margin of last genital segment of male, *Cylindromyia dosiades dosiades* (♀, Lafayette, Ind.; ♂, Cheboygan Co., Mich.); figs 3 and 4, same for *C. dosiades lobata* (♀ paratype, Chesapeake Beach, Md.; ♂, Mount Vernon, Va.). Fig. 5, male genitalia, *C. compressa* (Custer Co., Idaho).

the common appearance in the genus, with second and third segments subequal in length and without protuberances or spines.

Cylindromyia alticola Aldrich is a peculiar species and might justify still another subgenus, for which the name *Aldrichocoptera* Townsend would be available.

Cylindromyia dosiades (Walker)

This has been regarded as a common and widespread species, easily recognized by having only a single pair of scutellar bristles. However, there are two distinct types of females, differentiated by the proportions of the last genital segments. Unfortunately no completely reliable character has been found for separation of the males, although the shape of a process on the ventral margin of the second or last genital segment is useful, though variable. Typical *dosiades* is widespread across Canada and the northern United States. The second form ranges in eastern United States. It appears that the latter is not completely and sharply demarcated from the typical population, and I choose to consider it a subspecies.

C. dosiades dosiades (Walker)

Last genital segment of female (fig. 1) in profile comparatively narrow and tapering, the lobes relatively narrow when viewed from

below. Lower margin of last genital segment of male (fig. 2) with a usually broadly rounded process.

This is the typical form, according to sketches kindly made from the female holotype in London by Roger W. Crosskey. Additional material now before me from the Canadian National Collection, loaned through the kind cooperation of J. F. McAlpine, permits modification of the distribution stated in the Diptera Catalog to "Alaska, B. C. to N. S., s. to Calif., Colo., and N. Y."

C. dosiades lobata, new subspecies

Last genital segment of female (fig. 3) shorter and broader in profile, and the lobes broader, than in typical *dosiades*. Lower margin of last genital segment of male (fig. 4) with a usually narrow process, usually ending somewhat acutely.

This subspecies occurs in eastern United States, with records from southern Michigan to Massachusetts, south to Georgia.

Holotype female, College Park, Md., June 9, 1935 (C. T. Greene). Type No. 69089 in the U. S. National Museum. Paratypes (26, all females): *Conn.*: Canaan, Aug. 15-16, 1939 (A. Stone); Lyme, June 16, 1918 (Champlain) and July 5, 1918 (W. S. Fisher). *Md.*: Glen Echo, July 9, 1922 (J. R. Malloch); Beltsville, June 28, 1917 (L. O. Jackson) and July 26, 1917 (C. T. Greene); Chesapeake Beach, May 30 (J. M. Aldrich) and Aug. 16, 1926 (J. R. Malloch). *Mich.*: Nottawa, Aug. 25, 1950 (Sabrosky); Shiawassee Co., Aug. 17, 1946 (R. R. Dreisbach). *N. J.*: 3, Iona, Sept. 12, 1909; Glassboro, Nov. 9, 1896; Clementon, Sept. 11, 1909 (C. M. Greene), Aug. 30 and Sept. 4, 1908. *N. Y.*: Ithaca, July 9, 1884; Wilmington Notch, Adirondacks, July 2 (J. M. Aldrich). *Penn.*: Pocono Lake, July 11, 1911; Harrisburg, Aug. 11 (W. R. Walton). *Va.*: Great Falls, Sept. 25, 1913 (R. C. Shannon) and May 23, 1918 (C. T. Greene); Falls Church, June 25, 1917 (C. T. Greene); Chain Bridge, July 16, 1923 (H. W. Allen); Glencarlyn, June 5, 1918 (C. T. Greene). The Michigan paratypes are, respectively, in my own collection and in the Museum of Zoology, University of Michigan.

To eliminate possible misidentifications, no males have been included in the type series. In addition to males from some of the above localities and States, I have before me male specimens that I judge to be this subspecies, from D. C., Ga., Ind., Mass., N. C., and Ohio.

Cylindromyia compressa Aldrich

Aldrich described the species from a single female from Alberta. He actually had three males of *compressa* in material before him, but the similarity of genitalia caused him to record the three as aberrations of *dosiades* with apical scutellar bristles. These are the males from Laggan, Alta., Colorado, and Bottineau, N. Dak., recorded at the

bottom of page 9 of his revision. In addition, I have also seen four other males of *compressa*, two each from Baker, Nev., July 24, 1939 (T. O. Thatcher), and 20–25 miles ne. Stanley, Custer Co., Idaho, Sept. 12, 1964, sweeping *Aster* and *Grindelia* (J. Schuh, W. C. Peters).

As Aldrich surmised in his key (p. 7, couplet 3), the males differ from those of *californica* (Bigot) [*intermedia* Meigen of the Aldrich key] in having a normal fore tarsus, not concave posteriorly, and the hind tibia not villous on the inner side. The male genitalia are nearest to those of *dosiades*, and are figured here (fig. 5) for comparison with those of *dosiades* and also with *californica* (cf. figs. 7 and 2 of the Aldrich revision). The posterior forceps in profile are strongly tapering, with posterior margin curved, and densely haired, the hair tuft occupying much more of the forceps than in *dosiades*. The anterior forceps are broader than in *dosiades*, and they broaden sharply to an anterior basal angle.

All the males have two pairs of scutellar bristles, the long subapical pair and a small decussate apical pair. This character is more consistent than even Aldrich thought. However, discal bristles on the abdomen are quite variable. Of the seven males before me, two have a pair of discals on both second and third segments, one has a single unpaired discal bristle on both those segments, two have a pair of discals on the second only, and two have the second segment showing two single bristles on the mid line, possibly representing a lone discal and a lone marginal.

Cylindromyia binotata (Bigot) and *C. fumipennis* (Bigot)

Aldrich's couplet 19 is rather weak, as it depends on the more or less variable character of marginal bristles. Comparison of Aldrich's figures 27 and 28 shows that the female genital segments and their distal hooks offer a far better means of separation. In *binotata* (*argentea* in Aldrich), the genital hooks are small and close to the well-developed, shoulderlike apical angle of the segment, whereas in *fumipennis* (*vulgaris* in Aldrich) the hooks are large and strongly curved, finger-like, and not close to the apical angle of the segment, which is sloping and undeveloped.
